In this issue:

MIS Gets New, Advanced Software System

By Ellyn Pollack

In response to the rapid growth of medical research at NIH, the Clinical Center's Information Systems Department (ISD) recently converted the Medical Information System (MIS) to new software. The installation of TDS 7000, which is the most extensive change to MIS since it was installed in 1976, will provide the groundwork for future MIS expansion.

In 1976, fewer than 6,000 patients were admitted to the Clinical Center and 65,000 were seen in the outpatient clinics. Today, the Clinical Center averages 9,300 inpatient admissions and 152,000 outpatient visits every year. "We expect to see 22,000 new patients a year at the Clinical Center," says Regina Nealon, computer analyst. "We had to do some type of updating to keep all of them on-line."

MIS is a large, real-time computerized system that provides authorized Clinical Center healthcare professionals access to patient records to retrieve and add data. Patient information is displayed on video screens and is

Photo by Ernie Branson

Barbara Scott (l), nurse analyst; Esther McIntosh (c), nurse analyst; and Bernice Crossley, (r) section chief; all of ISD, test new MIS software.

CC Patient Conducts Floral Workshops for Others

Late in the afternoon of a pleasant February day, the sun shined into a room abounding with flowers and the kind of laughter that often accompanies springtime.

This scene may seem uncharacteristic for the time of year, but it is not really so peculiar. Not considering that it was set in the sun-filled arts-and-crafts room of the Patient Activities Department, where Clinical Center patient Emilie Trimbach conducted a flower arrangement workshop.

Trimbach, a former florist, shares her talent and spreads her joy as she teaches other Clinical Center patients how to make their own floral fantasies. She held the first flower workshop, on creating round flower baskets, February 19. She spread silk flowers and floral accessories (supplies that she donated) over a large table and began her floristry lesson. Twelve smiling, laughing, intent, and serious faces surrounded the table and watched eagerly as Trimbach demonstrated techniques and

applications. Then, armed with silk flowers, baskets, styrofoam, wire, and floral tape, the participants were set free to make their own creations. "They need instruction for the basic ideas," Trimbach said. "But then they can use their creativity and expression to create their own masterpieces."

Trimbach gave personal attention to slow starters and quick studies, alike. "Wow, that is beautiful! You should do weddings," she said to one

Letters to the editor...

Patient enjoyed activities

Thank you so much for the patient activities at the Clinical Center. I just returned home after a four-week stay at the Clinical Center. I live in Rome, New York, and consequently did not have many visitors while I was in the hospital.

To me, the television is pretty boring, so the staff and activities were pretty important to my sanity. I especially loved the librarian. I never did learn her name, but she knew mine and took a warm interest in me personally.

I spent a whole afternoon monopolizing Lauren, the quilt lady. It was so wonderful not having to talk about my "condition," just being able to talk about normal stuff like quilting.

I was quite impressed with the patience and kindness of the staff in the crafts room—not just with me, but with everybody who came in there.

I even enjoyed the guinea pigs in the children's playroom. We have two guinea pigs at home so it was kind of a link for me when I fed them treats.

I really had an enjoyable time going out. I attended the play *Run for Your Wife*. I had a great time. One time, Pam had to go out to get some fabric for turbans and she took me along to *G Street Fabrics*. I got to see more quilt fabric in one place than I had ever seen before.

I hope I don't sound too gushy, but the patient activities program really helped save my sanity during those four weeks and I appreciate it very much.

Annette Bloss

John Smith, Clinical Center housekeeping aide, recently received an award for 10 years of service in the United States government. Smith says, "I really like working here. I plan to stay as long as I can." He adds, "The favorite part of my job is working with the people on the first floor. They are very nice people to work and talk with." ∎

DTM recently held its first volunteer recognition luncheon. Seated, l to r: recruiters Pia Kruse, John Ryan, Dally Rogers, and Theodore Rosenberg. (Not pictured is Jane Todd.) Standing, l to r: DTM staff Marguerite Jacques, Pamela Geoffrey, Kathleen Matsangakis, Keith Redmond, Janet Pavel, Gail Carter, and Jackie Brown. ∎

FOCC Broadens Its Base

The Friends of the Clinical Center (FOCC) is growing and expanding its base. Recently, two developments have pushed the organization forward in its efforts: the development of corporate sponsors, and the opening of the Florists' workshop. The FOCC assists patients and their families during their treatment here.

Merck & Company, Inc., and Guest Services, Inc., are the first members of the FOCC's corporate sponsors—the Circle of Friends. Merck has contributed a large donation, and Guest Services has agreed to contribute a donation each year for five years.

In addition, the FOCC, in conjunction with the R&W, recently opened a flower shop in the Clinical Center lobby from which a portion of the profits will be donated to the FOCC. The arrangement with Florists' Workshop, one of Bethesda's leading florists, will allow NIHers and Clinical Center patients convenient access to one of Maryland's leading floral designers. The Florists' Workshop also provides FTD and Teleflora services, as well as floral arrangements for weddings.

Says Joan Clower, administrative assistant to the FOCC, "So far we have had very positive feedback about the shop. The prices are comparable to local florists; the quality and service are really good. We have high hopes."

Despite its growth, Linda Nee, president of the FOCC, urges all NIH employees to support the FOCC. "The number of charitable organizations has mushroomed and we need to maintain a source of income. We have real needs that we want to be able to meet and fulfill." She adds, "Our contributions are down this year. We really need the support of all NIH employees. As Clinical Center employees, we are all involved with patients and their families. Everyone can contribute even if it is just by baking a cake for a bake sale."

The FOCC provides emergency financial assistance to NIH patients and their families to help ensure that they are able to remain at the Clinical Center for the duration of their clinical research program and to promote their well-being during this time. Assistance from the FOCC ranges from paying a mortgage for a sick mother of two who lost her job, to providing funds for eyeglasses for a patient who cannot afford them. Each case is evaluated individually. "We average about eight requests in a month and provide about $400 for each request," Nee explains. Requests for assistance in 1991 ranged from $26 to $1,700.

Other mechanisms of support for the FOCC include the annual Patient Emergency Fund auction (scheduled for May 1), the meet-a-VIP raffle (held in the fall), and individual and group donations.

To make a donation, visit the FOCC display in the Clinical Center lobby and pick up an FOCC donation envelope. For more information, call the FOCC main office at 402-0193. ◾

100 Sparks of Life Given at the Blood Donor Center

G. Nelson Sparks recently gave his 100th blood donation at the blood donor center. Dr. Harvey Klein, chief of the Department of Transfusion Medicine, presented Sparks with a certificate honoring his contributions. From his 100 donations, Sparks has helped approximately 300 to 400 patients.

Sparks has given blood on a continual basis since he began working at NIH in 1968. When asked why he chose to be a regular donor, Sparks replied "because of the consistency in the excellent care and attention I receive when I donate." Sparks currently works as a personnel specialist in the division of personnel management for the Office of the Director.

Says Keith Redmond, blood resources supervisor, "The blood donor center congratulates Sparks for his accomplishment and hopes to see him around for years to come."

Anyone interested in donating blood for the Clinical Center patients can call the blood donor center at 496-1048. ◾

Refer requests for the release of patient information to the medicolegal section, 496-3331.

Confidentiality: It's In Your Hands

Confidentiality Education Group

Photo by Ernie Branson

Regina Nealon works on new software.

also printed on hard copy for patient files. In addition, doctors and nurses can enter medical orders directly into MIS using video terminals and personal work stations that are connected to a central computer.

According to Management Analyst Gerry Macks, the new system has 17,000 patient records on-line, but the quantity is "virtually unlimited." The old system reached its on-line capacity at 14,000 patient records. As a result, only current patient information could be accessed through MIS, for the most part. Patient records that were inactive for 30 days were automatically purged, or dropped, from the system. If the database ran close to capacity, a patient's name was kept in the system, but a patient's discontinued and completed orders were copied to tape and then sent to the Division of Computer Research and Technology, where they were added to the Clinical Information Utility (CIU), an archived database containing close to 100 million items on 200,000 former Clinical Center patients. The Clinical Center Medical Record Department's clinical research information service provided access to information stored in the CIU.

John Foy, M.D., Ph.D., deputy chief of ISD, adds, "The new software relieves the architectural limitations on how large the patient files can be. The new size limitations will be based on how much disk space we have." He speculates, "At some point, we will probably have to limit the size of the patient files so retrieval does not get too slow—whatever too slow is."

ISD tested the new system for two years prior to the conversion. Since the new system allows order numbers to be five digits (as opposed to four digits under the old system), one patient may now have up to 100,000 orders, a 50-fold increase over the old system.

In January, the new system was ready for conversion. To reduce the risk of disruption, the system was converted over a three-day weekend, according to Thomas Lewis, M.D., associate director for information systems. To avoid downtime, ISD staff made the daily copy of the database at 2 a.m. Friday, January 17, and moved everything over to the secondary system. They then ran the 12-hour database conversion on the secondary system. When this was completed, they put a tape of the transaction log on the secondary system and began replaying the transactions from the last 12 hours as a catch-up activity. The converted database, which was now up to date, was copied back onto the primary system. Throughout this process, MIS has remained on-line.

"If we had not used this plan and our backup system, MIS would have been down for 15 hours," Lewis says. "Even on a long holiday weekend, that would have been unacceptable.

"We had 24-hour coverage in ISD for the next week so that a

knowledgeable person would be available if a problem arose. [A technical expert from TDS was also on-site during the conversion weekend and the following week.] Despite all our testing, some problems still get through, but everyone has been very supportive. When people with problems have called, they were very specific and informative, which makes problem solving faster."

One problem that became apparent shortly after the conversion, was that lab results from the Clinical Pathology Department were going back to MIS improperly. ISD staff identified the symptoms and notified TDS. TDS found an obscure program error, and provided a temporary solution within four hours. A day later, the permanent solution was in place.

"Some problems only show up under heavy use," Lewis explains. "Three other hospitals using TDS 7000 had not encountered this latent error. One of the characteristics of NIH is that we tend to test and stretch technology more than other institutions. In fact, many university hospitals were waiting for us to convert to the new system before doing so themselves."

The physical expansion and conversion of the MIS database is just the first phase of the conversion. The second phase will be much more gradual. ISD staff will work with individual departments to develop the various capabilities of the new system to fit their needs.

Future development will include an appointment system, a biographical file that contains more data, new screen and report-coding capabilities, and an on-line copy technique to reduce downtime for file maintenance. ∎

participant. "Isn't that nice!" she verbally stroked another. "Use some more greens to show off the flowers," she encouraged yet another. "What talent we have here!" she exclaimed to the group.

Some participants knew just what they wanted to do. To these people, Trimbach offered helpful pointers: "Spread it out more, press the leaves down." For others who were not so sure what to do, Trimbach helped to pick flowers, add greenery, tie wire, and do other things associated with making floral arrangements. Said participant Wista Gooden, "I love flowers, but I didn't think I could do it [make a flower basket.] I am really surprised. This is wonderful. We have an excellent teacher," she beamed.

Many of the participants had serious plans for the products of their new-found talent. "I'm going to give my basket to Kate at the Children's Inn. She has been so nice to the kids," said Greatal Green. "I'm going to give this floral basket to my friend who came to visit me on one of my bad days—even when I told her it was not necessary. I made it in just the right colors for her house," shared Gooden.

Photo by Bill Branson

From l to r: CC patients Michele Meyers, Yasmin Nieves, Patient Activities Specialist Cindy White, class instructor Emilie Trimbach, and Yasmin's mother, Carmen, enjoy the flower workshop.

Trimbach started working with flowers 15 years ago. She trained at a floristry school in California and at a floral academy in England. She spent many years as a free-lance artist arranging wedding and liturgical floral displays for a church in Washington, D.C.

Despite this background, Trimbach's true profession was not floristry, but teaching. She taught Spanish and French in Montgomery County for 25 years. "My occupation was teaching, my avocation was floristry," she

explained. When I retired from teaching, I was able to spend time on my floral interests—which is the thing I absolutely love to do. Being a patient here myself, I thought other patients would really enjoy and benefit from learning how to create floral arrangements."

Trimbach hopes to continue with the floral workshops at the Clinical Center. She elaborates: "These workshops can be done throughout the year—for many occasions. We are discussing the possibility of expanding the classes to include making decorative projects for the holidays, centerpieces, corsages, and seasonal arrangements."

Everyone at the workshop benefits from it; Trimbach does too. Commented Patient Activities Specialist Cindy White, "The patients love the workshop. Emilie is wonderful!" Trimbach concedes, "I love doing the classes. It brings so much joy to the patients when they create something and can take it home. I love to see that. I love to see the joy on people's faces when they create something beautiful!" ∎

PEF Auction to be Held May 1

The eighth annual Patient Emergency Fund (PEF) auction is Friday, May 1. This year's auction will be held in the Clinical Center's Visitor Information Center. The silent auction will be from 11 a.m. to 2 p.m.; the live auction will be from 12:30 p.m. to 1 p.m.

Already donated to the auction are: Washington Ballet tickets, a two-night stay at the Baltimore Marriott Inner Harbor, and a family season pass to Wild World Amusement Park.

Last year's PEF auction, which earned more than $16,000, had items such as get-away-weekends, tickets to Washington Capitals hockey games, computer equipment, and home-baked desserts.

Departments are encouraged to donate as a group.Think about donating handcrafted items and household items. Donations can be dropped off at any R&W location. For more information, call Kelly McManus at 496-6061. ∎

On the ⓆT

Of Dump Trucks and Dominoes

By Sue Kendall

For five days in February, 25 Clinical Center staffers, including me, met at the Bethesda Ramada Inn and built dump trucks, played with dominoes, and counted M&Ms. It's true! As part of an innovative, hands-on class in leading a quality-improvement team, these techniques helped us make sense of some oft-fuzzy TQM concepts such as "operational definitions," "controlling variation," and "team-development theory." The consensus? It worked!

The instructors, Linda Cunningham and Deborah Heller, represent GOAL/QPC, a TQM consulting firm based in Methuen, Massachusetts, but the course's unique structure was their creation. "Their methods added fun and interest to the class," says Lynda Ray, from the Office of the Director. "Instead of a lot of lecturing, we got hands-on experience. I'm using techniques I learned without even thinking about it," she says. Kim Roche, of the hospital epidemiology service, concurs: "The teachers were great."

But what about those dump trucks? Let me explain. The instructors hoped to illustrate the pitfalls of running a business "the old way," with faulty communication, restricted roles, ambiguous instructions, and top-down management. Each team's goal was to turn a profit by constructing defect-free dump trucks out of Lego-like pieces—as many as possible in a set amount of time. Some teams succeeded; others didn't. The exercise was a great icebreaker. Says Ray, "It didn't matter if you were a GS-15 or a GS-2, we were all equal. None of us knew how to make those trucks!" At week's end, teams applied TQM strategy to another assembly run and fared much better.

The course was fleshed out by a case study, written by the instructors, about a fictional hospital. Our small groups were charged with using the TQM process (plan, do, check, act) to identify and solve various problems. The instructors employed the technique of "just-in-time learning." For instance, just before we defined which problem to fix, we played a game with dominoes that made us realize how two people can interpret even the simplest terms differently. If you say a domino is "lying sideways," do you mean it's on its skinny side or its broad side? Horizontal or vertical? This stressed the importance of "operational definitions," making sure everyone agrees on what terms mean and what the problem really is. Similarly, before we had to do a little number crunching, we learned some elementary statistical thinking by counting M&Ms and determining mean, median, and mode. Says Roche, "The most

QT Leader Training Group: Standing, l to r: Jorge Carrasquillo, Jessica Miller, Maureen Stoppenbach, Francis Waterhouse, Lisa Gallagher, Rebecca Brewer, Bridget MacNamara, Kathy Fedenko, Deborah Gardner, Volodya Krul, Elizabeth Sands, Larry Green, Betsy Jett, Harvey McDonald, Louise Meister. Seater, l to r: Cathy Lee, Diane Thompkins, Kathy Roden, Steve Stanhope, Dottie Cirelli, Tom MacNamara, Sue Kendall, Kim Roche, Susan Rudy, Lynda Ray.

enjoyable aspect for me was using the exercises to bring the theories into practice. The combination of lectures with hands-on exercises was really beneficial."

After each exercise, the group reconvened to discuss individual experiences. There was no formal evaluation of team efforts, like a grade or a prize. Lack of progress was treated as positive, as long as the group could pinpoint what got them stuck. Says Rebecca Brewer, of the Patient Activities Department, "My favorite part was seeing the improvement in how everyone communicated. It showed me that even in five days, a team can resolve issues if it works through the TQM system. All groups go through the same processes. That was enlightening." Elizabeth Sands, of management support services, agrees: "The training helped me understand the frustrations a team can go through, but how nice it can be in the end. If the leader can provide support for the team, it really takes off!"

The training stressed the importance of the planning stage, when a team establishes its identity and defines the problem to be solved. Many Clinical Center teams are now in this crucial stage. A team's initial meetings are often characterized by a sense of knowing what's wrong and how to fix it. Harvey McDonald, of the Radiology Department, sees this happening in the group he's leading: "Our data pointed to a problem we thought would be a quick fix," he explains. "But as the meeting wore on, we found that it was much more complex." Class participants, however, are rising to the challenge of guiding their teams toward solutions. Says Brewer, "The training cleared up a lot of questions about what a

leader's role is. It gave me the skills to run a team versus just the theory. Now I have a place to start."

Knowing where and how to start is, of course, the "final exam." Fortunately the instructors provided us each with a huge binder chock-full of tips, definitions, readings, pull-out charts, and a little book called the *Memory Jogger*, which reviews the seven basic quality-control tools (pareto diagrams, histograms, flow charts, etc.). We also received a list of names and phone numbers of classmates and other resources to call when we're feeling nervous or uncertain. Says McDonald, "I talked to a few group members just before I had to lead my first meeting. They helped me see that I was on the right track."

Says QT Coordinator Maureen Stoppenbach, "As we move out of the orientation phase and into the action phase of TQM, we need to support teams in their efforts." Training team leaders is an important step toward this goal. Throughout 1992, two more groups will participate in GOAL/QPC's unique class. If you have the opportunity to attend, I know at least 25 people who'd tell you it would be time well spent. ■

Quality Advisor Training

GOAL/QPC also trained 20 Clinical Center staffers as quality advisors ("tool masters"). The instructor was John (Jack) W. Moran, director of GOAL/QPC's Daily Management Project. Dottie Cirelli, from the Office of the Director, says, "Tool masters are available to consult with teams to help them decide which tools are appropriate to organize and display their data." The class covered the seven basic quality-control tools (cause & effect chart, flow chart, pareto diagram, run chart, histogram, control chart, and scatter diagram), among other tools better suited to well-established teams. Participants received a king-size version of the *Memory Jogger* and several other clearly written resource books, which delve deeper into which tools are appropriate for which stages and problems. "We're not experts yet," says Jane Thurber, of management support services, "but the training was very valuable." If your team needs the services of a tool master, contact Maureen Stoppenbach at 496-2897. ■

Medical Laboratory Week is April 12-18

The Clinical Center Clinical Pathology Department and the Department of Transfusion Medicine Blood Bank will celebrate Medical Laboratory Week, April 12-18, by hosting tours.

The theme of this year's Medical Laboratory Week is "Our Mission: Your Good Health." It illustrates the medical laboratory professional's commitment to patient care and medical research,

and the roles they play in detecting, diagnosing, and treating illness.

The Clinical Pathology laboratory and the Blood Bank will be hosting tours on Tuesday, April 14, from 10 a.m. to noon and from 2 p.m. to 4 p.m. The public, NIH employees, Clinical Center patients, and students are invited to attend. Please call 496-5688 to reserve your spot on the tour. ■

Sarah Young Retires

By Kathy L. Matrakas, RN

Sarah Young, known as Sally to her coworkers, retired from the Clinical Center Nursing Department on February 2.

Her professional nursing career spans 37 years, with over 30 of those years spent in the Clinical Center Nursing Department. Young's first nursing job was at the Shadyside Hospital, in Pittsburgh, as a team leader on a 32-bed medical/surgical unit. She came to NIH in 1961 and joined the cancer nursing service as a clinical nurse. She later became head nurse on the neurological nursing unit and also a clinical nurse expert. She was a preceptor for new employees and supervised and advised nursing students on the neurological and neurosurgical units. She was instrumental in paving the way to use video for inservice education.

For a brief time, Sally was also a clinical nurse on one of the endocrine units. Her last position, which she held since 1982, was as a clinical nurse on the aging research nursing service. After becoming certified in gerontological nursing by the American Nurses Association, she developed a nursing research protocol entitled *Effect of white noise on nocturnal wandering in the hospitalized, aged patient with primary degenerative dementia.* She copublished her findings and received the Research Nurse of the Year Award in 1985.

Young was a member of several professional organizations, including the American Nurses Association and the Maryland Nurses Association, and was also an organizer for the Alzheimer's Association. For her expertise with the elderly, she was looked to as a role model within her department.

Sally was born in Pittsburgh, and graduated from the Shadyside Hospital School of Nursing there.

Recently, coworkers, friends, and family attended a retirement dinner held in her honor at the Rio Grande Cafe in Bethesda, where restaurant management gave her the red, white, and blue chair that is used by President Bush when he visits. Young looks forward to enjoying her retirement at her house on the Chesapeake Bay. ∎

April Calendar of Events

1 **Grand Rounds**
12 noon-1 p.m. Lipsett Amphitheater
Depressive Recurrences: Impact at the Level of Gene Transcription, Robert Post, M.D., NIMH; *Current Issues in Scientific Integrity,* Jules Hallum, Ph.D., NIH Office of Scientific Integrity.

8 **Grand Rounds**
12 noon-1 p.m. Lipsett Amphitheater
Probing Visual Function in Retinal Degeneration, Rafael Caruso, M.D., NEI; *Cognitive Function in Alcoholism,* Michael Eckardt, Ph.D., NIAAA.

14 **National Medical Laboratory Week**
Tours of the Clinical Pathology Department and the Blood Bank. 10 a.m. until noon; 2 p.m. to 4 pm. Call 496-5688 to reserve a spot on the tour.

15 **Grand Rounds**
12 noon-1 p.m. Lipsett Amphitheater
Nuclear Magnetic Resonance: New, Noninvasive Insights into Physiological and Biochemical Function, Robert Balaban, Ph.D., NHLBI; *The Use of Taxol to Treat Carcinoma of the Ovary,* Eddie Reed, M.D., NCI.

22 **Grand Rounds**
12 noon-1 p.m. Lipsett Amphitheater
Niemann-Pick Disease, Norman Barton, M.D., Ph.D., NINDS; *The Many Faces of Multivisceral Transplan-tation,* Thomas Starzl, M.D., Ph.D., University of Pittsburgh.

29 **NIDDK Clinical Nutrition and Obesity Lecture Series**
Lipsett Ampitheater, 7 p.m. to 8:30 p.m. *Vitamin D: Not Just for Bones,* Hector F. Deluca, Ph.D., University of Wisconsin. For more information, call Dr. Van S. Hubbard at 496-7823.

29 **Clinical Staff Conference**
12 noon-1:30 p.m. Lipsett Amphitheater; *New Insights into Common Variable Immmmodeficiency,* Warren Strober, M.D., NIAID, Moderator.

30 **Volunteer Recognition Ceremony**
11 a.m. Lipsett Amphitheater Awards will be presented to Clinical Center Volunteers. Guest Speaker is Kathleen Kennedy Townsend, Maryland State Department of Education.